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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/765,921	01/29/2004	Alexander T. Schwarm	007733 USA/FPS/MMCS/APC	2673
60397 7590 04/12/2007 (DC) WILMERHALE/APPLIED MATERIALS 60 State Street Boston, MA 02109			EXAMINER SHECHTMAN, SEAN P	
			ART UNIT 2125	PAPER NUMBER

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/12/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/765,921

Applicant(s)

SCHWARM, ALEXANDER T.

Examiner

Sean P. Shechtman

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 January 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 5-31, 33-47, 50, 54-58, 60, 61 and 63-65 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 5-31, 33-47, 50, 54-58, 60, 61 and 63-65 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

1. Claims 28, 33, 41, 58, 65, 42, 43, 44, 46, 34, 35, 36, 39, 47, 40, 30 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Pat. No. 3,982,440 to Groleau et al (hereinafter referred to as Groleau).

Referring to claims 28, 33, 41, 58, 65, Groleau teaches monitoring performance of an advanced process control system for at least one static process output, comprising:

receiving process performance data for the at least one static process output (Col. 4, lines 10-14);

comparing the process performance data to at least one of a predicted value for the process performance and a target value for the process performance (Col. 22, lines 1-9);

calculating at least one index that reflects comparison of the process performance data to the at least one of the predicted value for the process performance and the target value for the process performance (Col. 22, lines 10-16); and

indicating the results of the calculation based on the at least one index, wherein the results indicate a status of the advanced process control system (Col. 11, lines 20-27).

calculating at least one of a model health index, and a process health index (Col. 20, lines 15-37; Col. 20, lines 1-8); and

characterizing a current estimate of the process performance using at least one of a first index that represents the deviation of the process performance from the target process

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performance and a second index that represents the deviation of the model performance from a specified model performance; and performing a notification function based on the value of at least one of the first index and the second index (Col. 20, lines 1-8); and

if the current model health index is calculated, calculating a subsequent model health index;; if the subsequent model health index is calculated, storing the current model health index and the subsequent model health index, such that comparing the current model health index and the subsequent model health index give an indication of a processing performance of the at least one process output; if the current process health index is calculated, calculating a subsequent process health index;; and if the subsequent process health index is calculated, storing the current process health index and the subsequent process health index, such that comparing the current process health index and the subsequent process health index gives an indication of the processing performance of the at least one process output (Col. 22, lines 10-16; Col. 20, lines 15-37; Col. 20, lines 1-8).

42, 43, 44, 46, 34, 35, 36, 39. The method of claim 1, wherein the step of indicating the results of the calculation comprises at least one of sending an indication to a controller that the at least one index is beyond an acceptable point, halting processing of the at least one process output if the at least one index is beyond an acceptable point, and storing the at least one index as an indication of the processing performance of the at least one process output (Col. 11, lines 20-27).

47, 40. The method of claim 5, further comprising the step of performing a notification function, wherein the notification function further comprises displaying the at least one of the

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model health index and the process health index in a visual display to allow a controller to assess the process performance of the at least one process output (Col. 11, lines 20-27).

30. The method of claim 28, further comprising: calculating at least one of an nth, where n is a number greater than three, model health index of a process performance of a nth one of the plurality of process outputs and a nth process health index of the process performance of the nth one of the plurality of process outputs; if the first model health index, the second model health index are calculated, and the nth model health index are calculated, calculating the aggregate model health index of the process performance of the plurality of process outputs; and if the first process health index, the second process health index, and the nth process health index are calculated, calculating the aggregate process health index of the process performance of the plurality of process outputs (Col. 20, lines 48-59; Col. 20, line 66 – Col. 21, line 2).

2. Claims 5, 19, 26, 27, 28, 33, 41, 50, 54-58, 60, 61, 63-65, 13, 15, 17, 20, 22, 24, 49, 42, 43, 44, 46, 34, 35, 36, 39, 4, 16, 18, 23, 25, 47, 40, 10, 29-31 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Pat. No. 6,389,331 to Jensen et al (hereinafter referred to as Jensen).

Referring to claim 5, 19, 26, 27, 28, 33, 41, 50, 54-58, 60, 61, 63-65, Jensen teaches monitoring performance of an advanced process control system for at least one static process output, comprising:

receiving process performance data for the at least one static process output (Col. 3, lines 64 – Col. 4, lines 13);

comparing the process performance data to at least one of a predicted value for the process performance and a target value for the process performance; and calculating at least one

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index that reflects comparison of the process performance data to the at least one of the predicted value for the process performance and the target value for the process performance (Col. 4, line 5 – Col. 6, line 44); and

indicating the results of the calculation based on the at least one index, wherein the results indicate a status of the advanced process control system (Col. 6, lines 45-50; Col. 8, lines 18-29).

calculating at least one of a model health index, wherein the model health index indicates an estimate of an ability of a model to predict the behavior of the at least one process output as compared to an expected output, and a process health index, wherein the process health index indicates an estimated probability of violation by the at least one process output of predefined specification limits (Col. 4, lines 14-60; Fig. 3); and

characterizing a current estimate of the process performance using at least one of a first index that represents the deviation of the process performance from the target process performance and a second index that represents the deviation of the model performance from a specified model performance; and performing a notification function based on the value of at least one of the first index and the second index (Col. 8, lines 10-29).

calculating at least one of a variance of a prediction error for a processing performance of the at least one process output and a probability for violating specification limits of the processing performance of the at least one process output, wherein the at least one of the variance and the probability are based on an exponentially weighted moving average (Col. 6, lines 45-56);

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if the variance of the prediction error is calculated, calculating a model health index, wherein the model health index is a ratio of an exponentially weighted moving average-based estimate of a standard deviation of the prediction error to an expected estimate of the prediction error, and wherein the exponentially weighted moving average-based estimate of the standard deviation of the prediction error is derived from the variance of the prediction error; if the probability for violating specification limits is calculated, calculating a process health index, wherein the process health index is a ratio of the probability for violating the specification limits to a specified probability limit (Col. 4, lines 14-60); and

if the current model health index is calculated, calculating a subsequent model health index, wherein the subsequent model health index indicates an estimate of an ability of a model to predict the behavior of a subsequent one of the at least one process output as compared to an expected output; if the subsequent model health index is calculated, storing the current model health index and the subsequent model health index, such that comparing the current model health index and the subsequent model health index give an indication of a processing performance of the at least one process output; if the current process health index is calculated, calculating a subsequent process health index, wherein the subsequent process health index indicates an estimated probability of violation by a subsequent one of the at least one process output of predefined specification limits; and if the subsequent process health index is calculated, storing the current process health index and the subsequent process health index, such that comparing the current process health index and the subsequent process health index gives an indication of the processing performance of the at least one process output (Col. 8, lines 18-23).

13, 15, 17, 20, 22, 24, 49, 42, 43, 44, 46, 34, 35, 36, 39. The method of claim 1, wherein the step of indicating the results of the calculation comprises at least one of sending an indication to a controller that the at least one index is beyond an acceptable point, halting processing of the at least one process output if the at least one index is beyond an acceptable point, and storing the at least one index as an indication of the processing performance of the at least one process output (Col. 8, lines 17-29).

16, 18, 23, 25, 47, 40. The method of claim 5, further comprising the step of performing a notification function, wherein the notification function further comprises displaying the at least one of the model health index and the process health index in a visual display to allow a controller to assess the process performance of the at least one process output (Col. 8, lines 17-29).

10. The method of claim 5, wherein the step of calculating the process health index further comprises the steps of: calculating a probability for violating specification limits of a processing performance of the at least one process output; and calculating a ratio of the probability for violating the specification limits to a specified probability limit (Col. 4, lines 14-60).

29. The method of claim 28, wherein the aggregate model health index is calculated using a geometric mean of the first model health index and the second model health index and the aggregate process health index is calculated using a geometric mean of the first process health index and the second process health index (Col. 7, lines 24-38).

30, 31. The method of claim 28, further comprising: calculating at least one of an n th, where n is a number greater than three, model health index of a process performance of a n th one

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of the plurality of process outputs and a nth process health index of the process performance of the nth one of the plurality of process outputs; if the first model health index, the second model health index are calculated, and the nth model health index are calculated, calculating the aggregate model health index of the process performance of the plurality of process outputs; and if the first process health index, the second process health index, and the nth process health index are calculated, calculating the aggregate process health index of the process performance of the plurality of process outputs; wherein the aggregate model health index is calculated using a geometric mean of the first model health index, the second model health index, and the nth model health index and the aggregate process health index is calculated using a geometric mean of the first process health index, the second process health index, and the nth process health index (Col. 7, line 24 – Col. 8, line 17).

3. Claims 28, 33, 41, 58, 65, 42, 43, 44, 46, 34, 35, 36, 39, 47, 40, 29-31 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Pat. No. 6,259,959 to Martin (hereinafter referred to as Martin).

Referring to claim 28, 33, 41, 58, 65, Martin teaches monitoring performance of an advanced process control system for at least one static process output, comprising:

receiving process performance data for the at least one static process output (Col. 2, lines 19-24; Fig. 2C);

comparing the process performance data to at least one of a predicted value for the process performance and a target value for the process performance; and calculating at least one index that reflects comparison of the process performance data to the at least one of the predicted

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value for the process performance and the target value for the process performance (Col. 2, lines 1-18; Fig. 11, Col. 9, lines 41-56; Col. 2, lines 8-10, work center X-factors); and

indicating the results of the calculation based on the at least one index, wherein the results indicate a status of the advanced process control system (Col. 1, lines 62 – Col. 2, line 18; Col. 6, lines 36-41).

calculating at least one of a model health index, and a process health index; and characterizing a current estimate of the process performance using at least one of a first index that represents the deviation of the process performance from the target process performance and a second index that represents the deviation of the model performance from a specified model performance; and performing a notification function based on the value of at least one of the first index and the second index (Col. 5, line 65 – Col. 6, line 25).

if the current model health index is calculated, calculating a subsequent model health index; if the subsequent model health index is calculated, storing the current model health index and the subsequent model health index, such that comparing the current model health index and the subsequent model health index give an indication of a processing performance of the at least one process output; if the current process health index is calculated, calculating a subsequent process health index; and if the subsequent process health index is calculated, storing the current process health index and the subsequent process health index, such that comparing the current process health index and the subsequent process health index gives an indication of the processing performance of the at least one process output (Figs. 3B and 4 ; Col. 2, lines 32-42; Col. 5, lines 10-24).

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49, 42, 43, 44, 46, 34, 35, 36, 39. The method of claim 1, wherein the step of indicating the results of the calculation comprises at least one of sending an indication to a controller that the at least one index is beyond an acceptable point, halting processing of the at least one process output if the at least one index is beyond an acceptable point, and storing the at least one index as an indication of the processing performance of the at least one process output (Col. 9, lines 2-13).

47, 40. The method of claim 5, further comprising the step of performing a notification function, wherein the notification function further comprises displaying the at least one of the model health index and the process health index in a visual display to allow a controller to assess the process performance of the at least one process output (Col. 9, lines 40-55).

29. The method of claim 28, wherein the aggregate model health index is calculated using a geometric mean of the first model health index and the second model health index and the aggregate process health index is calculated using a geometric mean of the first process health index and the second process health index (Col. 10, lines 28-41).

30, 31. The method of claim 28, further comprising: calculating at least one of an nth, where n is a number greater than three, model health index of a process performance of a nth one of the plurality of process outputs and a nth process health index of the process performance of the nth one of the plurality of process outputs; if the first model health index, the second model health index are calculated, and the nth model health index are calculated, calculating the aggregate model health index of the process performance of the plurality of process outputs; and if the first process health index, the second process health index, and the nth process health index are calculated, calculating the aggregate process health index of the process performance of the

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plurality of process outputs; wherein the aggregate model health index is calculated using a geometric mean of the first model health index, the second model health index, and the nth model health index and the aggregate process health index is calculated using a geometric mean of the first process health index, the second process health index, and the nth process health index (Figs. 3B and 4; Col. 2, lines 32-42; Col. 5, lines 10-24).

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

4. Claims 14, 21, 45, 37, 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jensen as applied to claims 5, 19, 26, 27, 28, 32, 33, 41, 48, 50-52, 53-61, 63-66, 2, 13, 15, 17, 20, 22, 24, 49, 42, 43, 44, 46, 34, 35, 36, 39, 4, 16, 18, 23, 25, 47, 40, 10, 29-31 above, and further in view of U.S. Pat. No. 5,548,535 to Zvonar (hereinafter referred to as Zvonar).

Referring to claims 14, 21, 45, 37, 38, Jensen teaches all of the limitations set forth above, however fails to teach sending an indication to a controller further comprises sending at least one of a page, an electronic mail message, and a message to a wireless personal data assistant.

However, referring to claims 14, 21, 45, 37, 38, Zvonar teaches analogous art, wherein sending an indication to a controller further comprises sending at least one of a page, an electronic mail message, and a message to a wireless personal data assistant (Col. 15, lines 45-48).

Therefore it would have been obvious to one of ordinary skill in the art at the time that the invention was made to combine the teachings of Zvonar with Jensen.

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One of ordinary skill in the art would have been motivated to combine these references because Zvonar teaches sending a mail warning message to designated users a predetermined amount of time before a monitor item becomes due so that the recipient(s) can take steps to perform the monitor item by the due date (Abstract).

5. Claims 45, 37, 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Martin as applied to claims 28, 33, 41, 58, 65, 42, 43, 44, 46, 34, 35, 36, 39, 47, 40, 29-31 above, and further in view of Zvonar.

Referring to claims 45, 37, 38, Martin teaches all of the limitations set forth above, however fails to teach sending an indication to a controller further comprises sending at least one of a page, an electronic mail message, and a message to a wireless personal data assistant.

However, referring to claims 45, 37, 38, Zvonar teaches analogous art, wherein sending an indication to a controller further comprises sending at least one of a page, an electronic mail message, and a message to a wireless personal data assistant (Col. 15, lines 45-48).

Therefore it would have been obvious to one of ordinary skill in the art at the time that the invention was made to combine the teachings of Zvonar with Martin.

One of ordinary skill in the art would have been motivated to combine these references because Zvonar teaches sending a mail warning message to designated users a predetermined amount of time before a monitor item becomes due so that the recipient(s) can take steps to perform the monitor item by the due date (Abstract).

Response to Arguments

6. Applicant's arguments filed 1/31/07 have been fully considered but they are not persuasive.

Referring to claims 28, 33, 41, 58, 63, 65, in response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., the model index indicates an estimate of an ability of a model to predict the behavior of the at least one process output as compared to an expected process output; a process health index indicates an estimated probability of violation of a limit) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Referring to claims 28, 33, 41, 58, 63, 65, applicant's arguments fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references.

Referring to claims 28, 33, 41, 58, 63, 65, applicant argues that Groleau fails to teach a model health index or process health index, claimed in the alternative. The examiner respectfully disagrees. The examiner respectfully submits that the theoretical index and actual index (Col. 20, lines 15-37; Col. 20, lines 1-8) is a model health index and process health index, respectively.

Referring to claims 28, 33, 41, 58, 63, 65, applicant argues that Martin fails to teach a model health index or process health index, claimed in the alternative. The examiner

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respectfully submits that the X-factor (Col. 2, lines 1-18; Fig. 11, Col. 9, lines 41-56; Col. 2, lines 8-10, work center X-factors) is a model health index or process health index.

Referring to claims 5-31,33-47,50,54-58,60,61 and 63-65, in response to applicant's arguments, the recitation "an advanced manufacturing process control system" has not been given patentable weight because the recitation occurs in the preamble. A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951).

Referring to claims 5-31,33-47,50,54-58,60,61 and 63-65, in response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., the APC methodology attempts to compensate for any changes in the manufacturing process) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Allowable Subject Matter

7. Claims 6-9, 11-12 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

Referring to claims 6-9, 11-12, Martin teaches all of the limitations set forth above, however fails to teach the step of calculating the model health index further comprises the steps of: calculating a variance of a prediction error for a processing performance of the at least one process output; and calculating a ratio of an estimate of a standard deviation of the prediction error to an expected estimate of the prediction error, wherein the standard deviation of the prediction error is derived from the variance of the prediction error; wherein the step of calculating the process health index further comprises the step of calculating a variance of a target deviation for the processing performance of the at least one process output, wherein the variance of the target deviation indicates a bias between an actual output of the at least one process output and a target output.

Referring to claims 6-9, 11-12, Ali teaches analogous art, wherein calculating a model health index further comprises the steps of: calculating a variance of a prediction error for a processing performance of at least one process output; and calculating a ratio of an estimate of a standard deviation of the prediction error to an expected estimate of the prediction error, wherein the standard deviation of the prediction error is derived from the variance of the prediction error; wherein the variance of the prediction error indicates a bias between an actual output of the at least process output and the expected output; wherein the variance of the prediction error is based on an exponentially weighted moving average; wherein the estimate of the standard deviation of the prediction error is based on an exponentially weighted moving average; wherein the step of calculating the process health index further comprises the step of calculating a variance of a target deviation for the processing performance of the at least one process output, wherein the variance of the target deviation indicates a bias between an actual output of the at

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least one process output and a target output; wherein the variance of the target deviation is based on an exponentially weighted moving average (Col. 3, lines 28 – Col. 4, lines 65; Col. 5, line 35 – Col. 7, line 18).

However, neither Martin nor Ali, taken either alone or in obvious combination disclose a method having all the claimed features of applicant's instant invention, specifically including: calculating at least one of a model health index, wherein the model health index indicates an estimate of an ability of a model to predict the behavior of the at least one process output as compared to an expected output, and a process health index, wherein the process health index indicates an estimated probability of violation by the at least one process output of predefined specification limits. It is for these reasons that applicant's invention defines over the prior art of record.

Conclusion

8. THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

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9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sean P. Shechtman whose telephone number is (571) 272-3754.

The examiner can normally be reached on 9:30am-6:00pm, M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Leo P. Picard can be reached on (571) 272-3749. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

SPS

Sean P. Shechtman

April 4, 2007



LEO PICARD
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100